

Current distribution and status of the Persea mite *Oligonychus perseae* infesting avocado trees in Morocco

O. Tounia^{1,2}, A. Boutaleb-Joutei¹, N. Haddad³, A. El Gada⁴, R. Lahlali¹ and M.C. Smaili^{3*}

Summary Surveys to assess the current distribution and status of the Persea mite *Oligonychus perseae* Tuttle, Baker and Abatiello (Acari: Tetranychidae) and its natural enemies were conducted in 85 avocado orchards in north-west Morocco between October 2023 and October 2025. The mite was recorded on leaves in several orchards with low to high infestation while it did not occur on the fruits. A morphological identification of *O. perseae* is provided, based on Moroccan specimens. Currently, *O. perseae* is not causing economic damage to avocado fruits in Morocco, but its establishment in new areas within the country and the increase of its population on leaves may constitute a threat to fruit and yield in commercial avocado cultivation in the future.

Additional Keywords: Hass variety, Integrated pest management, monitoring, Morocco

Introduction

In the Mediterranean region, Morocco is a significant producer and exporter of fresh fruits of avocado (*Persea americana* Mill.). In the last decade, hectares of avocado cultivation area in the country have significantly increased due to rising consumer demand, mainly from European Union countries. Despite water scarcity in the country, avocado production area expanded to approximately 11,770 ha with an annual production of 116,207 tonnes of fresh avocados in 2024 (FAOSTAT, 2026).

Many sap-sucking pests attack this crop, including mite species. Tetranychidae species, can cause direct feeding injuries by piercing and sucking out plant cell contents from leaf and fruit surfaces. *Oligonychus* is the largest genus in the family and based on the orientation of the male aedeagus; it consists of two subgenera: *Oligonychus* Berlese

and *Reckiella*, Tuttle and Baker (Mushtaq *et al.*, 2023). *Oligonychus* Berlese is one of the most economically important and largest subgenus, with 211 species (Mushtaq *et al.*, 2021, 2024).

The Persea mite *Oligonychus perseae* (Tuttle, Baker and Abatiello), is a known major pest of avocado, especially in Central America (EFSA *et al.*, 2022). It is polyphagous, feeding on approximately 20 different hosts in 17 botanical families (EFSA *et al.*, 2022; Torres *et al.*, 2024; EPPO, 2026). Native to Central America, it was first described in 1975 on intercepted avocado plants from Mexico at a quarantine facility in Texas (USA). *Oligonychus perseae* is the main cause of economic damage in major avocado-producing regions worldwide (Torres *et al.*, 2024). It is now widespread and has been reported from North America (California, Florida and Mexico), Hawaii, and Central America (Costa Rica) (EPPO, 2026). Within the European Plant Protection Organization (EPPO) region, *O. perseae* has been reported from France (Auger *et al.*, 2023), Greece (Bitsakis *et al.*, 2026), Israel (Maoz *et al.*, 2011a), Italy (Zappala *et al.*, 2015), Morocco (Smaili and Benyahia, 2018a), Portugal and Madeira Island (Ferreira *et al.*, 2006; Boieiro *et al.*, 2013) and Spain (mainland and Canary Islands) (Torres *et al.*, 2024). The Persea mite was included in the EPPO alert list in 2003 and was

¹ Department of Plant and Environment Protection, National School of Agriculture, S/40, 50001 Meknes, Morocco.

² Hassan II Institute of Agronomy and Veterinary Medicine, Al Irfane City Box 6202, Rabat, Morocco.

³ Laboratory of Entomology, Regional Center of Agricultural Research of Kenitra, National Institute of Agricultural Research, 14000 Kenitra, Morocco.

⁴ Anwar Green Group, 92, Resistance Street, Casablanca, Morocco.

* Corresponding author: csmaili@yahoo.fr

then removed in 2008 (EFSA *et al.*, 2022).

In Morocco, until late in the 2010s, avocado groves were relatively free from major insect pests. Since then, avocado production has expanded into several new areas within the country and subsequently several new pests were recorded starting in 2018 (Smaili and Benyahia, 2018 a,b; Boutaleb-Joutei, 2019; Ait-Baddou *et al.*, 2024; Smaili *et al.*, 2024; Haddad *et al.*, 2025 a,b). *Oligonychus perseae* was first detected infesting avocado leaves at Mnasra (Kenitra province) in October 2018 (Smaili and Benyahia, 2018a). Thereafter, no further studies or additional details have been published, so very little is known about its distribution within the country. This study aims to provide a description of the current distribution and status of *O. perseae* on avocado in Morocco. It provides morphological diagnosis of the species based on Moroccan specimens.

Materials and Methods

The survey for *O. perseae* was conducted in western and northern region of Morocco, where most avocados are grown, between October 2023 and October 2025. In total, 85 avocado orchards were surveyed across nine provinces (Fig. 1): Berkane and Oujda (north eastern, Morocco), El Jadida (western Morocco), Kenitra, Khemisset, Larache, Sale, Sidi Slimane and Rabat (north western Morocco). Monitoring was conducted two to three times in each orchard where ten trees were randomly selected, and 20 leaves and eight fruits were observed and examined from each tree. Avocado leaves were collected in small plastic bags and then carefully transferred to the laboratory for further identification of pest presence. In addition, the beating method (10 branches were beaten) was performed four times from each orchard (for each visit), using a white plastic bag connected to a plastic funnel (20 cm in diameter) to capture insects.

Natural enemies observed were also collected for further identification to species level. Total mites on the second major

vein from ten avocado leaves that were randomly picked from ten trees from each orchard. The infestation levels (%) were estimated using the same formula as that used in a previous study on avocado (Smaili *et al.*, 2024; Haddad *et al.*, 2025b), based on the ratio of insect-infested leaves (or fruits) to the total number of leaves (and fruits) examined, multiplied by 100. Infestation levels were categorized into four classes: absent or rare when very few or no avocado mites were found (0–<1%); low (1–<5%); moderate (5–<10%); and high (10–100%). The average number of *O. perseae* on leaves was estimated using Machlitt's method (Machlitt, 1998). Samples of avocado leaves containing *O. perseae* were labeled and kept at 4°C for subsequent identification.

Oligonychus perseae was identified by Smaili and Benyahia (2018a). Identification of *O. perseae* was conducted under a stereomicroscope (Olympus SZX7, Japan) based on the morphological characters by Torres *et al.* (2018), Mushtaq *et al.* (2021) and Auger *et al.* (2023). Information on the pattern of infested avocado leaves on which the mite has been found facilitated species identification. Photographs of mite and leaves infested with *O. perseae* were taken in the laboratory using a digital camera attached to the same stereomicroscope.

Results and Discussion

Identification of *Oligonychus perseae* (Tuttle, Baker and Abbatiello)

Macroscopically, *O. perseae* adult and immatures are light-yellowish. Adult female with oval-shaped body, slightly flattened and elongated with two or three black spots to metasternum (Fig. 2).

Microscopic specimens of *O. perseae* (n=20) were identified with accurate description by Mushtaq *et al.* (2024). Female with 9 and 6 or 7 tactile setae on tibia I and II, respectively (Fig. 2). Male ventrally bent part of aedeagus short, with pointed tip. Female with dorsal body setae slender, setae c1 and d1 about three-quarters as long as distance

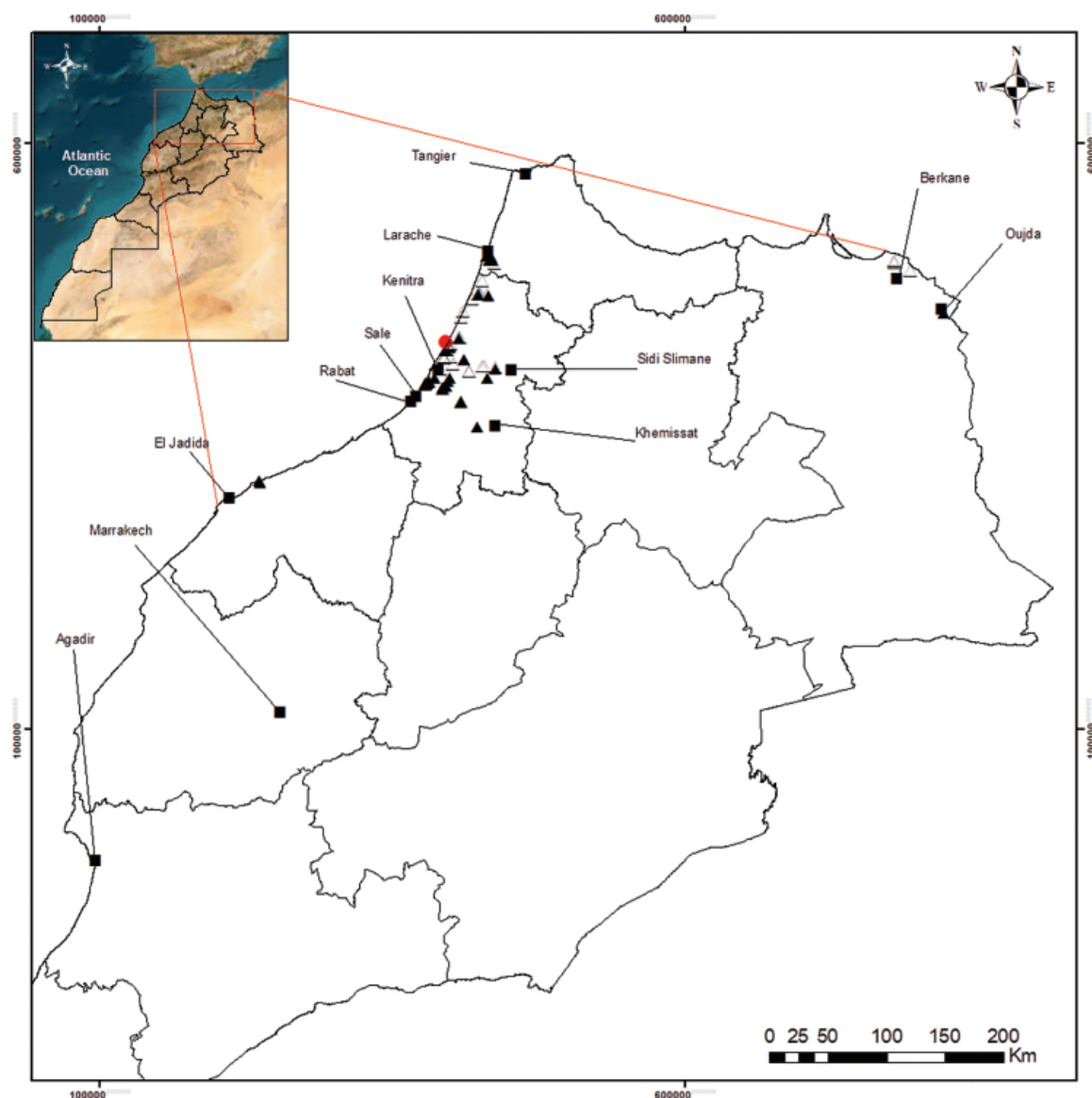


Figure 1. Map of Morocco with inset showing sites studied between October 2023 and October 2025. Provinces (grey solid square) sampled avocado sites (empty triangle), avocado sites with the current occurrence of *Oligonychus perseae* (Tuttle, Baker and Abatiello) (black solid triangle), avocado site with the first occurrence of the Persea mite during October 2018 (red solid circle). Credit O. Tounia

between them, e1 reaching to bases of f1; striae forming inverted V-pattern between d1-f1 setae.

Biology

As other Tetranychidae species, *O. perseae* has five developmental stages (egg, larva, protonymph, deutonymph and adult male and female) (Fig. 2). Feeding and reproduction activities occur in the characteristic nests. Aponte and McMurtry (1997) re-

ported that the life cycle of the Persea mite ranges from 34.9 days (at 15°C) to 9.8 days (at 30°C). In this study, the average number of nests built by a female was 12.17 at 20°C and the greatest number of eggs per female per nest was 5.20 at 25°C.

Occurrence, dispersal, damage, and economic importance

Oligonychus perseae was recorded at several of the 85 avocado surveyed groves in

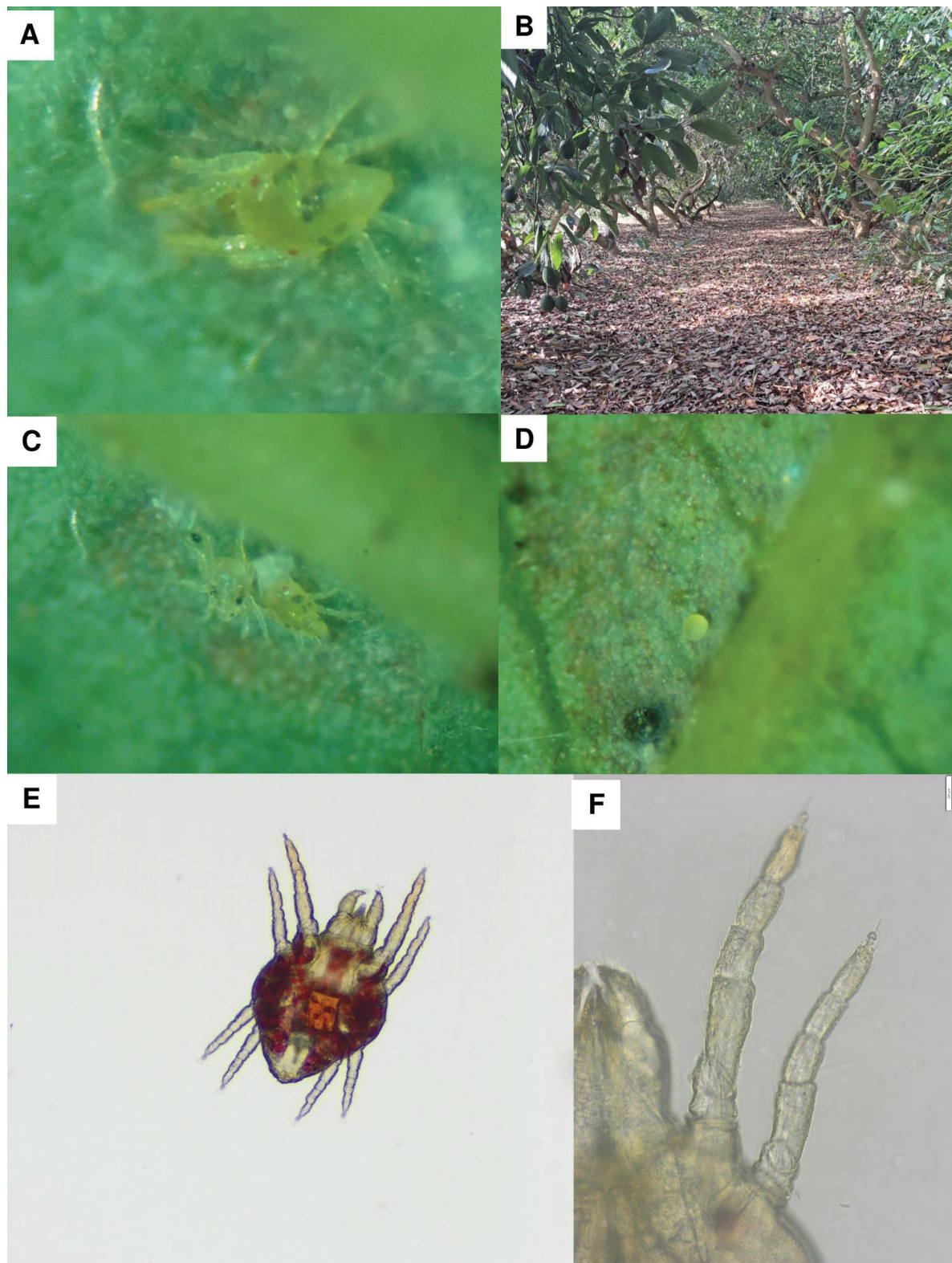


Figure 2. *Oligonychus perseae* (Tuttle, Baker and Abatiello) in avocado. A. Habitus of adult; B. Habitat: avocado orchard; C. Nymphal instars; D. egg; E. Adult dorsal view in habitus with sclerotized area; F. View of the tibia and tarsus of the first and second legs. Photographs by O Tounia and MC Smaili.

north and west Morocco (Fig. 1). This geographical distribution practically indicates

an expansion of several Km since the Per-sea mite was first observed with restricted

distribution at avocado orchards in Mnasra (34.469535N, -6.532931W) (Kenitra province) between October and December 2018 and later in Laouamra zone (Larache province) (Smaili and Benyahia, 2018a). In this survey, population expansion was documented near Azemmour city (Azemmour province) and near Oujda city (Oujda province), about 199 km southwest and 425 km northeast of the original detection site of Mnasra (Fig. 1, red circle). In addition, *O. perseae* was newly recorded in several other orchards between 12 to 79 km away from the original detection site supporting also potential further spread of the mite considering the rising number of the avocado growers in Morocco.

Infestation levels found on the leaf samples collected in the present study (Oc-

tober 2023 to October 2025) at these orchards are provided in Table 1. *Oligonychus perseae* populations were found only on avocado leaves, at low to high infestation levels. Leaf damage was observed where *O. perseae* had settled on the leaf underside along the midrib and other larger veins to feed on phloem sap. When population levels were high, damage occurred also in the lamina area (between two veins) of leaves. On the underside of leaves, feeding damage showed minute necrotic and webbing spots, called "nests" of about 1-2 mm² at each damaged area (Fig. 3). Feeding from the underside appeared as circular yellow chlorotic spots on the upper side of the leaf. Feeding damage was to cells of the epidermal and spongy and palisade parenchyma

Table 1: Infestation levels of *Oligonychus perseae* (Tuttle, Baker and Abatiello) in avocado orchards in Morocco: provinces sampled and leaf infestation levels [number of *O. perseae* on leave according to Machlitt's method] recorded between October 2023 and October 2025.

Provinces	GPS coordinates	Infestation on avocado leaf
El Jadida province (Azemmour)	33,363699N, -8,228033W	High 45.00% [51.60] (02/05/2025)
El Jadida province (Azemmour)	33.374793 N, -8.234502W	High 52.50% [66.72] (02/05/2025)
Berkane (Madagh-Laatomna)	34.981877 N, -2.199860W	Absent 0.00 % [0.00] (13/07/2025)
Oujda province (near Oujda city)	34.651576 N, -1.899311W	High 50.00% [64.80] (07/06/2025)
Kenitra province (Bouknadel)	34.1417222 N, -6.7241389W	High 48.75% [67.32] (12/04/2025)
Kenitra province (Mnasra, first reported site)	34.469535 N, -6.532931W	High 40.00% [58.32] (02/11/2024)
Kenitra province (Had Oulad Jelloul)	34.502650 N, -6.411888W	High 16.25% [57.00] (12/04/2025)
Kenitra province (Mnasra)	34.415837 N, -6.532931W	High 38.75% [53.64] (16/05/2024)
Khemisset province (Tiflet)	34.017926 N, -6.394414W	Low 3.75% [47.28] (12/06/2025)
Khemisset province (Tiflet)	33.825041 N, -6.237855W	Moderate 6.25% [44.64] (12/06/2025)
Larache province (near Larache city)	35.108592N, -6.128303W	High 58.75% [66.48] (27/12/2024)
Larache province (near Larache city)	35.101394N, -6.133627W	High 41.25% [51.24] (10/11/2024)
Sidi Slimane province (Dar Belamri)	34,264994N, -6,078167W	High 17.50% [48.48] (19/04/2025)

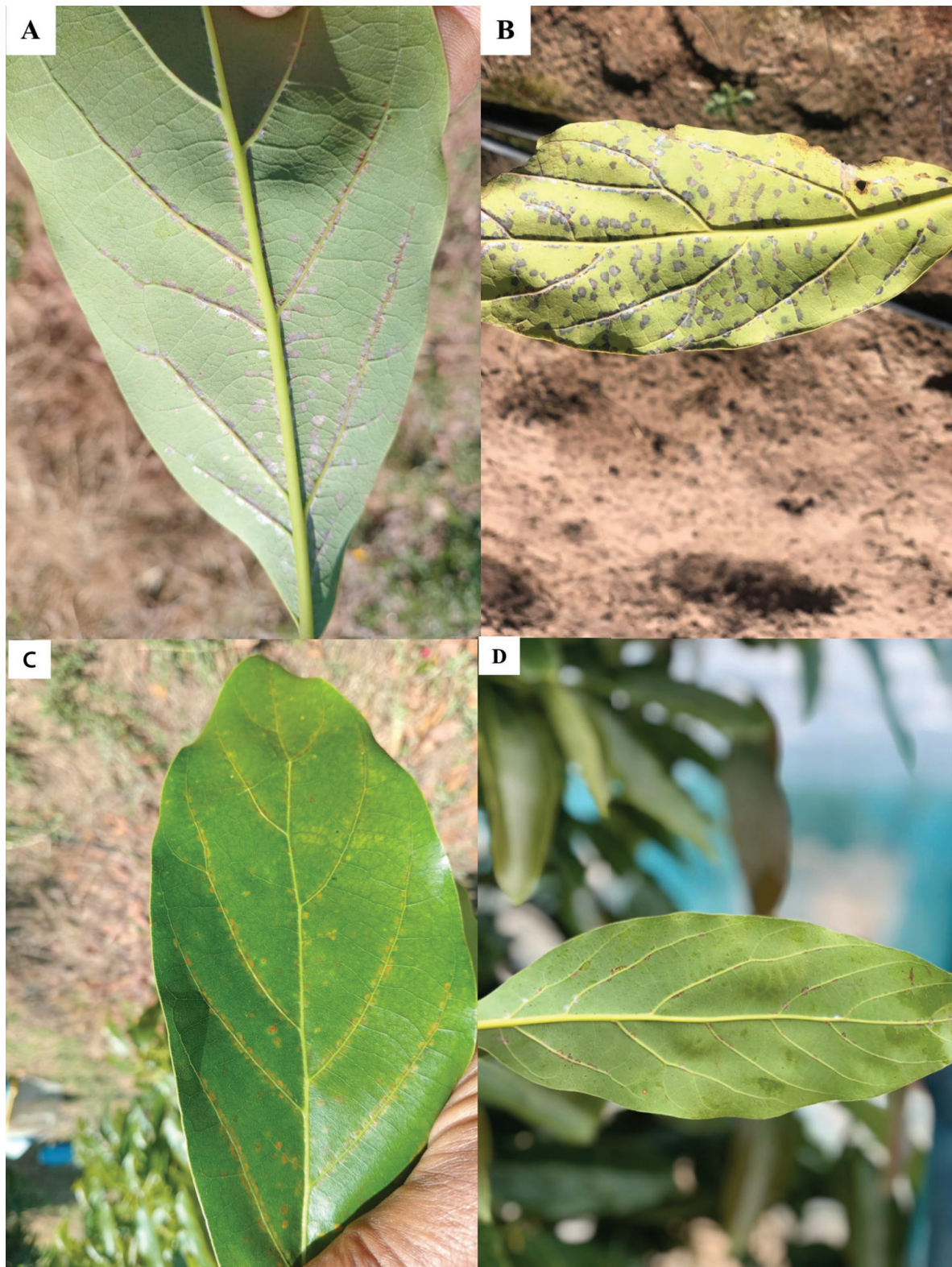


Figure 3. *Oligonychus perseae* (Tuttle, Baker and Abatiello) infestation on avocado leaf. A. Tiny nest on veins; B. Heavy infestation and discoloration of leaf; C. Low infestation on veins limited by unfavorable climate condition; D. Low infestation. Photographs by O Tounia and MC Smaili.

(Fig. 3). Heavy mite damage can lead to discolored leaf tissue and leaf drop. The occur-

rence of *O. perseae* did not affect the fruits. In Spain, *O. perseae* has been reported as an

economically important foliar pest of avocados (Torres *et al.*, 2023). High populations (> 500 mites per leaf) can cause partial or total tree defoliation and increase the risk of sunburn to young fruit, leading to premature fruit drop may (EFSA, 2022).

In the coastal production areas in the northwest of Morocco (Larache and Kenitra provinces), *O. perseae* population may be observed between September to May, with their numbers and associated nest-picked leaves becoming more noticeable from October until December. In those coastal provinces (especially Mnasra, province Kenitra) significant damages were recorded on avocado leaves for a long portion in the growing seasons as humid air conditions and more moderate temperatures can favour the mite. Additionally, the micro-sprinkler mounted within each tree's canopy makes the environment in tree canopies more suitable for mite development and persistence. In Greece, the Persea mite rapidly spread across nearly all regions where avocados are cultivated in the western and coastal part of Crete (Bitsakis *et al.*, 2026). In drier regions, far from the coast, with high temperatures and low humidity throughout more of the growing season, *O. perseae* did not persist (significant numbers between October and November) and less damage was observed.

Other recorded pests included the yellow cottony cushion scale, *Icerya seychellarum* (Westwood) (Hemiptera: Coccothraupidae: Monophlebidae) and the citrus leafhopper, *Penthimiola bella* (Stål) (Hemiptera, Cicadellidae) were found infesting the same area of leaf with *O. perseae* (Fig. 4).

Natural enemies

Natural enemies of *O. perseae* recorded during this study included *Euseius stipulatus* (Athias-Henriot) and *Typhlodromus phialatus* (Athias-Henriot) (Acari: Phytoseiidae) and *Chrysoperla carnea* (Stephens) (Neuroptera: Chrysopidae), with very low numbers on both on *O. perseae*-infested leaves and non-infested leaves. Smaili *et al.* (2020, 2025) listed divers beneficial species, including Phytoseiidae species, in Morocco and

gave insights into their potential use as bio-control agents. In Morocco, most avocado orchards are planted on sandy soil and are overcrowded, with insufficient light for supporting wild herbaceous ground cover that support natural enemy populations. This is likely one reason natural enemy species diversity and abundance within herbaceous ground covers is often very low.

In Israel and Spain, maize pollen that supports natural enemies was sprayed on avocado leaves and contributed to increased *E. stipulatus* and *Euseius scutalis* (Athias-Henriot) populations and reduced *O. perseae* infestations (Maoz *et al.*, 2011b; Torres *et al.*, 2024). In addition, Maoz *et al.* (2011b) reported that in Israel, field trials of Rhodes grass (*Chloris gayana* Kunth) cover crop provided windborn pollen that helped conserve native *E. scutalis* populations was a highly effective and sustainable approach to *O. perseae* management. Similarly, in Spain, González-Fernández *et al.* (2009) planted maize plants between rows of avocado trees to support natural enemies of *O. perseae*. The same authors reported that laboratory experiments demonstrated that *Neoseiulus californicus* (McGregor) (Mesostigmata: Phytoseiidae) feeds inside prey nests, whereas *E. stipulatus* does not, thus reducing the competition among predators.

Conclusions

Oligonychus perseae was found at several avocado orchards in Morocco at low to high leaf infestation levels, mainly between October and May. Infestation was observed only on leaves especially in coastal avocado production areas in north and west Morocco. The expansion of Persea mite to new regions and higher infestation levels may constitute a threat to fruit and yield in these commercial avocado orchards. Further research is necessary to detect and prevent the spread of *O. perseae* to new avocado growing areas in Morocco, as the impact of the climatic change and avocado farming norms that reinforce overcrowded orchards

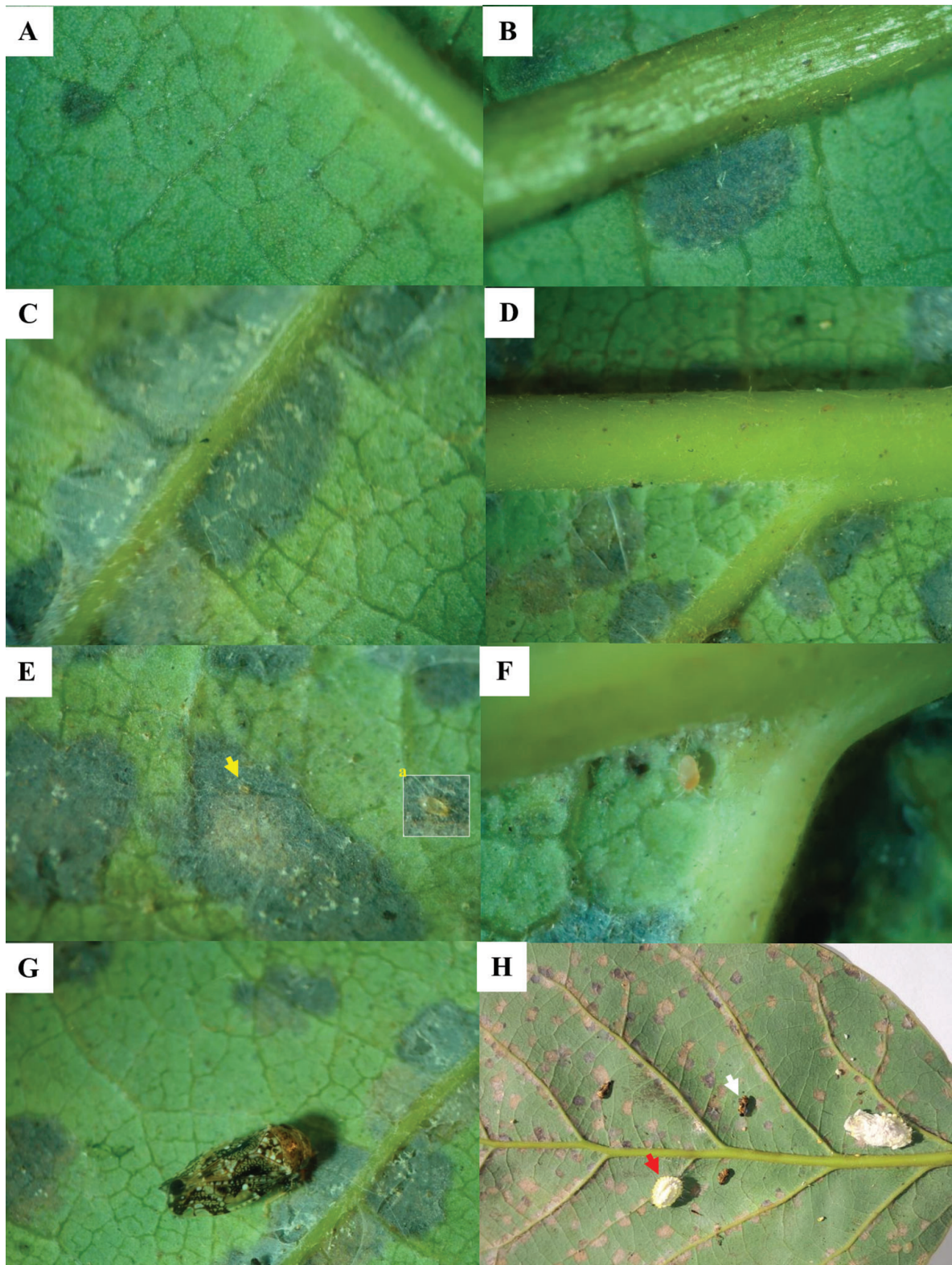


Figure 4. *Oligonychus perseae* (Tuttle, Baker and Abatiello). A. Tiny nest on underside Leaf; B. Nest next to the midrib of leaf; C. Webb on nest; D. Nest next to the second vein; E. Presence of mite Tarsonemidae species (a) in the nest between two veins (yellow arrow); F. *Lorryia formosa* (Cooreman) (Acari: Tydeidae) next to nest of the Persea mite. G. High *O. perseae*-infested avocado leaf with the presence of the citrus leafhopper *Penthimiola bella* (Stål). H. Leaf underside with the presence of the yellow cottony cushion scale, *Icerya seychellarum* (Westwood) (red arrow), *P. bella* adult (white arrow) and nests of the Persea mite (red arrow). Photographs by O Tounia and MC Smaili.

and associated high humidity microclimatic conditions might support increased pest population. Research should include spacing, pruning, and use of cover crops to support natural enemies in developing an integrated pest management program against the Persea mite.

Conflict of Interest

The authors declare no conflict of interest.

The authors are sincerely grateful to Dr Nancy L. Adamson and Reviewers for their helpful critique and suggestions for improving the manuscript.

Literature Cited

- Ait Baddou, S., Watson, G.W., Mrabti, I., Grijja, H., Benkirane, R. and Smaili M.C. 2024. First record of the yellow cottony cushion scale, *Icerya seychellarum* (Westwood) (Hemiptera: Coccothraupidae: Monophlebidae) in Morocco. *Zootaxa*, 5507(3): 498–500.
- Auger, P., Navia, D. and Migeon, A. 2023. Three new alien spider mites (Prostigmata, Tetranychidae) from south-eastern France. *Acarologia*, 63(3): 826–833.
- Aponte, O. and McMurtry, J.A. 1997. Damage on 'Hass' avocado leaves, webbing and nesting behaviour of *Oligonychus perseae* (Acari: Tetranychidae). *Experimental and Applied Acarology*, 21: 265–272.
- Bitsakis, D., Petrakis, I., Stathakis, Th., Kapaxidi, E., Varikou, K. and Papachristos, D. 2026. New Records of Tetranychidae (Prostigmata) in avocado crops in Crete, Greece. *Hellenic Plant Protection Journal*, 19: 26–32.
- Boieiro, M., Varga-Szilay, Z., Costa, R., Crespo, L., Leite, A., Oliveira, R., Pozsgai, G., Rego, C., Calado, H., Teixeira, M., Lopes, D.H., Soares, A. and Borges, P.A.V. 2024. New findings of terrestrial arthropods from the Azorean Islands. *Biodiversity Data Journal*, 12: e136391.
- Boutaleb-Joutei, A. 2019. Un nouveau ravageur identifié sur avocatier au Maroc, la vigilance s'impose. *Agriculture du Maghreb*, 116: 60–61.
- EFSA PLH Panel (EFSA Panel on Plant Health), Bragard, C., Baptista, P., Chatzivassiliou, E., Di Serio, F., Gonthier, P., Jaques Miret, J.A., Justesen, A.F., Magnusson, C.S., Milonas, P., Navas-Cortes, J.A., Parnell, S., Potting, R., Reignault, P.L., Stefani, E., Thulke, H.H., Van der Werf, W., Vicent Civera, A., Yuen, J., Zappala, L., Gregoire, J.C., Malumphy, C., Kertesz, V., Maiorano, A. and MacLeod, A. 2022. Scientific Opinion on the pest categorisation of *Oligonychus perseae*. *EFSA Journal*, 20(6), 7336. 21 pp.
- EPPO. 2026. *Oligonychus perseae* (OLIGPA). EPPO Global Database. Available online at: <https://gd.eppo.int/taxon/OLIGPA/distribution/> [accessed on 19 May 2026].
- FAOSTAT. 2026. Food and Agriculture Organization of the United Nations report. World statistical yearbook. Available online at <https://www.fao.org/faostat/fr/#data/QCL>. [accessed on 19 May 2026].
- Ferreira, M.A., Brazao, C.I. and Franqhino Aguiar, A.M. 2006. Ocorrência de *Oligonychus perseae* Tuttle, Baker, Abbatiello (Acari: Tetranychidae) na lha da Madeira. *Agronomia Lusitana*, 51: 219–222 (in Portuguese).
- González-Fernández, J.J., De La Peña, F., Hormaza, J.I., Boyero, J.R., Vela, J.M., Wong, E., Trigo, M.M. and Montserrat, M. 2009. Alternative food improves the combined effect of an omnivore and a predator on biological pest control. A case study in avocado orchards. *Bulletin of Entomological Research*, 99(5): 433–444.
- Haddad, N., Ahrens, D. and Smaili, M.C. 2025a. First record of *Maladera insanabilis* (Brenske, 1894) (Coleoptera: Scarabaeidae: Sericinae) in Morocco. *Zootaxa*, 5590 (3): 447–450.
- Haddad, N., Ait-Baddou, S., Benkirane, R. and Smaili, M.C. 2025b. The citrus leafhopper *Penthimiola bella* (Stål) (Hemiptera: Cicadellidae), infesting avocado and citrus trees in Morocco. *EPPO Bulletin*, 55(2): 285–292.
- Machlitt, D. 1998. Persea mite on avocados—A quick field counting method. *Subtropical Fruit Notes*, 6(2): 1–4.
- Maoz, Y., Gal, S., Zilberstein, M., Izhar, Y., Alchanatis, V., Coll, M. and Palevsky, E. 2011a. Determining an economic injury level for the Persea mite, *Oligonychus perseae*, a new pest of avocado in Israel. *Entomologia Experimentalis et Applicata*, 138(2): 110–116.
- Maoz, Y., Gal, S., Argov, Y., Coll, M. and Palevsky, E. 2011b. Biocontrol of perseae mite, *Oligonychus perseae*, with an exotic spider mite predator and an indigenous pollen feeder. *Biological Control*, 59 (2): 147–157.
- Mushtaq, H.M.S., Kamran, M. and Alatawi, F.J. 2024. The subgenus *Oligonychus* (*Oligonychus*) Berlese (Acari, Prostigmata, Tetranychidae), diagnostic keys to world species, and taxonomic notes. *The European Zoological Journal*, 91(1): 559–567.
- Mushtaq, H.M.S., Kamran, M. and Alatawi, F.J. 2023. World species of the subgenus *Oligonychus* (Reckia) Tuttle and Baker (Acari, Prostigmata, Tetranychidae), diagnostic keys, taxonomic notes, and a new species. *Scientific Reports*, 13(1): 13392.

- Mushtaq, H.M.S., Alatawi, F.J., Kamran, M., Flechtmann, C.H.W. 2021. The genus *Oligonychus* Berlese (Acari, Prostigmata, Tetranychidae): taxonomic assessment and a key to subgenera, species groups, and subgroups. *ZooKeys*, 1079: 89–127.
- Auger, P., Nenise, N. and Migeon, A. 2023. Three new alien spider mites (Prostigmata, Tetranychidae) from south-eastern France. *Acarologia*, 63(3): 826–833.
- Smaili, M.C. and Benyahia, H. 2018a. Invasion et recrudescence des dégâts d'un nouveau ravageur émergent sur avocatier au Maroc: *Oligonychus perseae* (Acari: Tetranychidae). *Agriculture du Maghreb*, 115: 88–89.
- Smaili, M.C. and Benyahia, H. 2018b. Nouvelle cicadelle *Penthimiola bella* sur l'avocatier au Maroc: Une autre menace potentielle pour l'agrumiculture. *Agriculture du Maghreb*, 115: 86–87.
- Smaili, M.C., Boutaleb, J.A. and Blenzar, A. 2020. Beneficial insect community of Moroccan citrus groves: assessment of their potential to enhance biocontrol services. *Egyptian Journal of Biological Pest Control*, 30: 47.
- Smaili, M.C., Mrabti, I., Grijja, H., Watson, G.W., Moghaddam, M. and Ziri, R. 2024. Florida red scale, *Chrysomphalus aonidum* (Linnaeus, 1758) (Hemiptera: Diaspididae) in Morocco, infesting citrus orchards and an avocado tree. *EPPO Bulletin*, 54: 204–211.
- Smaili, M.C., Haddad, N., Chetto, O., Benyahia, H. and Benaouda, H. 2025. Eco-friendly alternatives to chemical pest control for sustainable citrus groves in Morocco. *Hellenic Plant Protection Journal*, 18: 50–68.
- Torres, E., Álvarez-Acosta, C., del Pino, M., Wong, M.E., Boyero, J.R., Hernández-Suárez, E., Vela, J.M. 2023. Economic impact of the Persea mite in Spanish avocado crops. *Agronomy*, 13: 668.
- Torres, E., Álvarez-Acosta, C., Ferragut, F. and Hernández-Suárez, M.E. 2024. *Oligonychus perseae* (Tetranychidae) invasion in the Canary Islands: history, management and current situation. *Agronomy*, 14(5): 920.
- Torres, E., Perera, S., Ramos, C., Álvarez, C., Carneiro, A., Boyero, J.R., Vela, J.M., Wong, M.E. and Hernández, E. 2018. Avances en el manejo integrado de *Oligonychus perseae* Tuttle, Baker & Abatiello en Canarias. Manual Técnico No 2. Instituto Canario de Investigaciones Agrarias. 70 p.
- Zappala, L., Kreiter, S., Russo, A., Tropea Garcia, G. and Auger, P. 2015. First record of the Persea mite *Oligonychus perseae* (Acari: Tetranychidae) in Italy with a review of the literature. *International Journal of Acarology*, 41(2): 97–99.

Received: 23 February 2026; Accepted: 23 May 2026

Υφιστάμενη κατάσταση και διασπορά του ακάρεως *Oligonychus perseae* σε προσβεβλημένα δένδρα αβοκάντο στο Μαρόκο

O. Tounia, A.Boutaleb-Joutei, N. Haddad, A.El Gada, R. Lahlali και M.C. Smaili

Περίληψη Επισκοπήσεις για την αξιολόγηση της υφιστάμενης κατάστασης και διασποράς του ακάρεως *Oligonychus perseae* Tuttle, Baker και Abatiello (Acari: Tetranychidae) και των φυσικών εχθρών του διεξήχθησαν σε 85 οπωρώνες αβοκάντο στο βορειοδυτικό Μαρόκο μεταξύ Οκτωβρίου 2023 και Οκτωβρίου 2025. Το άκαρι καταγράφηκε σε φύλλα σε αρκετούς οπωρώνες με χαμηλή έως υψηλή προσβολή, ενώ δεν εντοπίστηκε σε καρπούς. Πραγματοποιήθηκε μορφολογική ταυτοποίηση του *O. perseae* με βάση δείγματα από το Μαρόκο. Προς το παρόν, το άκαρι δεν προκαλεί οικονομική ζημιά στους καρπούς αβοκάντο στο Μαρόκο, αλλά η εγκατάστασή του σε νέες περιοχές εντός της χώρας και η αύξηση του πληθυσμού του στα φύλλα μπορεί να αποτελέσει απειλή για τους καρπούς και την απόδοση στην εμπορική καλλιέργεια του αβοκάντο στο μέλλον.

Hellenic Plant Protection Journal **19**: 48-57, 2026